

The first pair, as in the male, is terminated by a powerful claw; the last joint of the others is hollow, and terminated by a round orifice.

The abdomen has on each side a broad, lamellar, bifurcate false leg, and these appendages are preceded by others which are also lamellar, pointed and denticulated on the margins; these are organs of propulsion, and subsequently form the branchiæ. In some individuals the extremity of the abdomen bears, close to the anus, two small, flat, rounded, margined laminæ. The body of the young animal is of a pale violet-grey colour, as are also the eggs; and it is to the latter, seen through the transparent incubatory laminæ, that the suprathoracic pouch of the female owes its peculiar tint.

The females of these Crustaceans reside in tumours produced by them on the inner surface of the arch of the branchial cavity in *Galatea squamosa*; and the males are found adhering to the abdomen of the females, frequently to the branchial laminæ. In many cases two males are attached to one female.

XXII.—*Contributions to an Insect Fauna of the Amazons Valley.*

COLEOPTERA: LONGICORNES. By H. W. BATES, Esq.

[Continued from p. 113.]

6. *Hypselomus paganus*, Pascoe.

H. sordide fuscus, nigro obscure irroratus; thorace dorso tuberoso, lateribus tuberculo acuto; elytris humeris subconicis, antice curvato angulatis, cristis centrobasalibus prominulis, obtusis. Long. 7-8 lin. ♂ ♀.

Head dingy brown. Antennæ blackish brown, bases of the joints (from the fourth) pallid. Thorax with prominent dorsal ridge and, on each side, two well-marked tubercles, sides each with a small acute tubercle; colour dingy tawny brown, speckled with dusky. Elytra with projecting shoulders, the projection somewhat conical, but anterior slope curved or angulated, the apex formed by a thick black tubercle; centro-basal ridges pronounced, but not crested with tubercles; surface dingy tawny brown, speckled or irregularly marked with dusky. Body beneath dingy brown; abdomen black in the middle. Legs blackish, speckled with tawny; base of claw-joint reddish: posterior tibiæ in the male dilated at apex. Supplementary antennal joint of male wanting.

Ega and S. Paulo, Upper Amazons.

7. *Hypselomus seniculus*, n. sp.

H. parvus, fuscus griseo vestitus, summa fronte acute bituberculata;

elytris grosse punctatis, humeris modice productis, obtuse truncatis, truncaturæ angulo postico acuto; maris articulo 12^{mo} antennarum longiusculo, curvato. Long. 4½ lin. ♂.

Head clothed with thick tawny-grey pubescence, vertex spotted with brown; inner side of each antenniferous tubercle (♂) produced into an acute tooth. Antennæ towards the base grey, spotted with dark brown; apices of third to eleventh joints dusky, bases of joints from the fourth testaceous. Thorax convex, unarmed, grey, coarsely punctured (especially on the sides) and spotted with dark brown. Elytra moderately broad at the shoulders, the latter not conically produced, but obtusely truncated, with the posterior end of the truncature acute; surface thinly clothed with grey pile, and coarsely punctured, simply convex. Body beneath and legs clothed with tawny-grey pile, spotted with blackish, base of claw-joint testaceous; apical half of posterior tibiæ strongly dilated (♂).

Ega.

8. *Hypselomus crassipes*, n. sp.

H. robustus, brunneus; thorace lateribus pallidis; elytris utrinque macula oblonga transversa cretacea; pedibus crassis, nigris, tibiis posticis maris trigonis. Long. 8½ lin. ♂.

Head coarsely wrinkled, black; antenniferous tubercles produced on the inner side into a stout spine (♂). Antennæ scarcely so long as the body, bases of joints, from the fourth, pale testaceous; twelfth joint (♂) short and twisted. Thorax convex in the middle, without distinct tubercles, a short obtuse tubercle on each side; above dark brown, sides dingy tawny white, traversed by an indistinct dusky stripe. Elytra broad and but slightly convex; shoulders conically produced, base on each side obtusely elevated and very coarsely granulate-punctate, sides under the humeral projections also coarsely punctured, rest of the surface faintly punctured; dark brown, base dingy tawny white; each elytron beyond the middle ornamented with a distinct oblong, transverse, chalky spot. Body beneath dingy tawny; abdomen black in the middle. Legs very stout, black; tibiæ compressed; hind tibiæ (♂) dilated from the base, and obliquely truncated at the apex; claw-joint red.

Tapajos. Apparently allied to *H. fasciatus* of Thomson; but no mention is made by this author of any peculiar formation in the legs.

9. *Hypselomus simplex*, n. sp.

H. subelongatus, brunneo-fulvus, unicolor; elytris modice attenuatis, humeris conicis; antennis gracilibus, articulis basi griseis. Long. 6½–9 lin. ♂ ♀.

Rather more elongate than the allied species; but the elytra rather convex, and the third antennal joint strongly bent. Head

dusky. Antennæ slender, a little longer than the body in the female, much longer in the male; basal joint strongly clavate; dark brown, bases of the joints, from the fourth, grey. Thorax bituberculate on each side the central ridge, dingy tawny brown. Elytra elongated, gradually and slightly tapering from base to apex; shoulders conical, base on each obtusely raised, finely punctured, colour uniform brownish tawny. Body beneath tawny brown; abdomen black down the middle. Legs simple, posterior tibiæ scarcely dilated in the male; black, thinly clothed with tawny pile; claw-joints black.

Ega.

10. *Hypselomus lignicolor*, n. sp.

H. subcylindricus, brunneus; thorace et pectore vittis lateralibus obliquis, elytris sutura vittisque lateralibus abbreviatis curvatis, nigris pallide marginatis; elytris compressis, sparsim punctatis, humeris paulo productis haud tuberculatis. Long. $5\frac{1}{4}$ lin. ♀.

Head tawny, spotted with dark brown. Antennæ as long as the body (♀), moderately stout, brown, unicolorous. Thorax unarmed and free from tubercles, surface smooth, brown; sides each with two oblique, blackish vittæ, the upper one margined with dull ochreous; there is also a short dusky central line near the middle of the hind margin. Scutellum blackish in the middle. Elytra nearly cylindrical, sides compressed, shoulders produced each into a slightly elevated ridge not surmounted by a tubercle; surface sparingly and finely punctured, brown, suture and several curved streaks on each side blackish, the lateral streaks margined on the upper sides with pallid brown. Body beneath brown; breast with oblique stripes, dull ochreous and blackish; basal half of abdomen dusky. Legs simple, tawny brown.

Ega. This species is much more elongate and narrow than the typical forms of the genus; it consorts, however, much better with the *Hypselomi* than with *Hesycha* or *Oncideres* (which comprehend elongated forms), having antennæ approximated on the forehead instead of widely separated at their bases. It seems to be nearly allied to *Hypselomus egens*, Erichson (Consp. Col. Peru. p. 148).

11. *Hypselomus obscurellus*, n. sp.

H. subelongatus, nigricans, griseo variegatus; antennis articulo basali apice subgloboso; thorace postice constricto; elytris elongato-trigonis, humeris conico-elevatis, obtusis. Long. $5\frac{1}{2}$ lin. ♂.

Head dusky, eyes ample; forehead narrow, coarsely punctured; antenniferous tubercles unarmed. Antennæ black, base of joints grey, basal joint very abruptly clavate near the apex, subglobose, third joint very slightly curved. Thorax cylindrical, constricted behind the middle, surface very uneven, coarsely wrinkled trans-

versely, dark brown. Elytra moderately elongated, wide at the base, and narrowed thence towards the apex; shoulders conically produced, but apex of cone obtuse and not tuberculated; surface very roughly punctured near the base, more finely so towards the middle, colour dark brown or blackish, thinly variegated with greyish pile. Body beneath tawny brown; abdomen in the middle glossy blackish, and sides spotted with black. Legs blackish, varied with tawny; hind tibiæ dilated near the apex (♂).

Obydos, Lower Amazons. Similar in size and general figure to *H. Syrinx** (*Hesycha syrinx*, Dj. Cat. and French collections), but differing in the shape of the basal joint of antennæ and in the constricted thorax.

Genus JAMESIA, Jekel.

Jekel, Journal of Entomology, i. p. 259.

This genus is distinguished from *Hypselomus* by the basal joint of the antennæ being very gradually thickened from the base to the apex, not abruptly clavate, and by the third joint being quite straight instead of crooked. The claw-joints of the tarsi are quite as long as the three remaining joints taken together. The species have the same heavy figure and dull colours; but the elytra are much more elongated, and less trigonal. The genus is distinguished also by the large volume and subquadrate form of the eyes.

There seems to be scarcely sufficient difference to warrant the separation of *Jamesia* from *Clytemnestra* (Thoms.)†, the larger volume of the eyes being the only apparent definite character.

* *Hypselomus Syrinx*. Subelongatus, brunneus vel nigricans, elytris utrinque vitta obscura obliqua pallidiore. Caput angustum, fronte impunctata; tuberis antenniferis intus dente armatis. Antennæ corpore paulo longiores, articulis basi pallidioribus, articulo basali paulo incrassato. Thorax basi latus, antice angustatus, linea dorsali elevata. Elytra elongata, postice paulo attenuata, subtiliter punctata, brunnea, linea curvata mediana obscure fulva; humeris prominulis, in carinam lævem curvatam desinentibus. Corpus subfuscum. Pedes fusci, unicolores; tibiis compressis. Long. $4\frac{1}{2}$ – $5\frac{1}{2}$ lin. ♂ ♀. Hab. Rio Janeiro.

† Since the early part of the genus *Hypselomus* in this memoir was in print, I have found that Perty and Serville happen to have described the types of two distinct genera under the respective names of *Hypsioma* and *Hypselomus*. The latter genus is equivalent to *Clytemnestra* of Thomson, which therefore becomes a synonym. M. Thomson, in his later work, 'Systema Cerambycidarum,' has adopted this change of nomenclature. The following rectification of synonymy is therefore necessary:—

Gen. 1. *Hypselomus*, Perty, Delect. An. Art. Bras.

= *Clytemnestra*, Thomson, Class. des Cérambycides.

= *Jamesia*, Jekel, Thomson, Systema Cerambycid. (section).

Gen. 2. *Hypsioma*, Serville, Ann. Soc. Ent. Fr. iv.

= *Hypselomus*, Thoms. (Class. des Céramb.) Bates (*ut supra*) and authors, *nec* Perty.

1. *Jamesia globifera*, Fab.

Lamia globifera, Fabricius, Syst. Eleuth. ii. 284. 15.

Hypselomus variolosus, Pascoe, Trans. Ent. Soc. n. s. v. pt. 1 (1859).

J. subelongata, sordide griseo-brunnea; thorace transverse ruguloso et acute tuberculato; elytris prope basin tuberculis globosis nigris politis et postice maculis nigris leviter impressis variegatis; capite lateribus parallelis, oculis magnis, subquadratis; antennis brunneis, maris corpore multo longioribus; pedibus simplicibus. Long. 10 lin.

Not uncommon on dead trees throughout the Amazons region; also found at Cayenne.

2. *Jamesia pupillata*, Pascoe.

Hypselomus pupillatus, Pascoe, Trans. Ent. Soc. n. s. v. pt. 1.

Jamesia bipunctata, Jekel, Journ. of Entom. i. 260.

J. subelongata, parum convexa, olivaceo-brunnea, nigro punctata; elytris medio utrinque ocellatis; maris capite infra dilatato, cornibus frontalibus magnis acutis porrectis; antennis quam corpus duplo longioribus. Long. 11 lin. ♂ ♀.

Differs from *J. globifera* chiefly by the more depressed form of the elytra, and the absence of basal elevation with globular tubercles. It may readily be recognized also by the eye-like spot on the disk of each elytron, consisting of a rounded, black, slightly impressed spot, surmounted by a white speck. The antennæ are much more elongated, and the projecting angles of the antenniferous tubercles in well-developed males are very large and acute, and are directed horizontally. The base of the elytron has a few minute granulations with punctures, and the rest of the surface is sprinkled with rounded, dark-brown, slightly impressed spots, as in *J. globifera*.

Eggs; not uncommon.

Genus HESYCHA (Dj. Cat.), Thomson.

Thomson, Archiv. Entom. i. 187 (1857).

Fairmaire, Ann. Soc. Ent. Fr. (1859), p. 523.

This genus was first characterized, in few words, by M. Thomson in 1857; but the description subsequently published by M. Fairmaire defined more accurately its points of distinction. It agrees with *Hypselomus* in having the first joint of the antennæ abruptly clavate, and the third joint curved; the curvature, however, is much less pronounced than in *Hypselomus*, and is sometimes very slight. Its other distinguishing characters are (1) the elongate, parallelogrammical, and depressed form of body, (2) the more elongated claw-joint of the tarsi, and (3) the wide separation of the antennæ at their origin.

1. *Hesychna Nyphonoïdes*, Pascoe.

Hesychna Nyphonoïdes, Pascoe, Trans. Ent. Soc. n. s. v. pt. 1.

H. parallelogrammica, depressa, obscure fusca cinereo-fulva variegata; elytris medio fascia undulata, obscura, cinereo-fulva. Long. $6\frac{1}{2}$ –8 lin. ♂ ♀.

Head dull brown; forehead broad, sparingly punctured; antenniferous tubercles in the male produced on their inner side into a stout pointed tooth. Antennæ in the male nearly twice the length of the body, with the apical joint greatly elongated; in the female about the length of the body, apical joint shorter than the preceding; colour dull brown or blackish. Thorax uneven above, sides with a short pointed tubercle; dull brown, speckled with black. Elytra slightly narrowed from base to apex, shoulders slightly prominent and surmounted by an obtuse shining tubercle; surface even, thickly but finely punctured, dull brown, covered with dingy tawny confluent spots, and crossed beyond the middle by a zigzag fascia of a little paler hue. Body beneath and legs blackish or dull brown.

Common on branches of dead trees at Ega. There are two closely allied species in collections from the interior of French Guiana*.

* *Hesychna jaspidea*, n. sp. *H. Nyphonoidei* simillima, robustior, maris elytris postice magis angustatis et fronte valde cornuta. Obscure fusca; thoracis lateribus utrinque tuberculis duobus obtusis armatis. Elytra humeris prominentibus, basi rugoso-punctata et inæqualia fusco-nigra, maculis sordide fulvis sparsis quarum tribus majoribus medianis in fasciam abbreviatam conjunctis. Corpus subtus fulvo tomentosum. Antennæ valde elongatæ, articulis basi griseis. Long. 8 lin. ♂. *Hab.* In Cayenna interiore (Dom. Bar).

Hesychna liturata, n. sp. Minor, brunnea, elytris litura tenui obliqua albicante. Caput fuscum, fronte punctata, tuberculis antenniferis utroque sexu intus acutis. Antennæ brunneæ, maris corpore paulo longiores. Thorax quadratus, lateribus tuberculo distincto subacuto, supra brunneus vittis tribus nigris, lateribus cinerascens. Elytra postice paulo angustata, apice oblique breviter truncata, humeris vix productis, obtusis; dorso punctata, brunneo et fulvo variegata, infra humeros (cum prothoracis et pectoris lateribus) nigricantia, apud medium litura tenui valde obliqua albicante. Corpus subtus et pedes brunneo tomentosa. Long. 5–6 lin. ♂ ♀. *Hab.* In Cayenna (Dom. Bar).

The following species belongs also to this genus, from its linear subdepressed form and the somewhat wide separation of the antennæ at their bases:—

Hesychna xylyna, n. sp. Elongata, sordide brunnea; elytris rugoso-punctatis, fusco et griseo strigatis, humeris subuncinatis. Caput fuscum, fronte grosse sparsim punctata, tuberculis antenniferis intus dente valido curvato armatis (♂). Antennæ valde elongatæ, brunneæ, apice pallidæ, articulis (à tertio) basi testaceis, articulo 12^{mo} acuto, curvato. Thorax supra inæqualis, inermis, brunneus. Elytra valde elongata,

2. *Hesycha maculosa*, n. sp.

H. elongata, convexiuscula, fusca, maculis numerosissimis partim confluentibus fulvis; vertice nigro trilineato; thorace nigro maculato. Long. $8\frac{1}{2}$ lin. ♂ ♀.

Head dusky, front channeled down the middle, punctured; eyes rather elongated, margined on the inner side narrowly with tawny; vertex tawny, marked in the middle with three parallel black lines; antenniferous tubercles produced into a short acute tooth on the inner side, longer in the male than in the female. Antennæ longer by one half than the body in the male, and the terminal joint very slender and much longer than the preceding; in the female a little longer than the body, with the terminal joint shorter than the preceding; basal joint abruptly clavate, third joint scarcely perceptibly curved; colour blackish. Thorax quadrate, surface uneven, with several impressed curved lines and raised interspaces, sides behind the middle with an acute tubercle; colour tawny, marked with two short black lines in front in the middle and a spot behind them, and four spots on each side of the disk. Scutellum black. Elytra elongate and rather convex, slightly tapering; shoulders prominent, and surmounted by a glossy black tubercle; surface quite even and moderately punctured, dark brown, covered uniformly with a multitude of tawny specks, mostly confluent. Body beneath tawny. Legs blackish.

Ega.

3. *Hesycha cretacea*, n. sp.

H. oblongo-elongata, subdepressa; elytris maculis numerosis fulvis maculaque magna laterali cretaceo-alba. Long. 8 lin. ♀.

Head grey, margins of eyes with tawny lines, front punctured; eyes elongated; antenniferous tubercles acute on their inner side, vertex with three short black streaks. Antennæ a little longer than the body, dark brown; basal joint clavate, third joint very slightly curved. Thorax quadrate, sides each with two large obtuse tubercles, surface with transverse furrows, tawny mixed with grey, and spotted with black. Scutellum black, margined with grey. Elytra oblong, a little dilated beyond the middle, slightly convex, shoulders moderately prominent; with irregular clusters of punctures arranged in lines, black, covered with pinkish-tawny spots, partly confluent, and

parum convexa; humeris productis, antice curvatis, postice tuberculo nigro armatis, quasi uncinatis; supra grosse punctata, punctis partim confluentibus, sordide brunnea, strigis pallidis et fuscis variegata. Corpus subtus brunneum. Pedes fusci. Long. $4\frac{1}{2}$ lin. ♂. *Hab.* Rio Janciro, à D. Squires capta.

having in the middle on each side a large chalky-white spot. Body beneath dull chalky white; breasts with pinkish streaks, and abdomen spotted with black. Legs black, thinly clothed with grey pile.

Ega; rare. This handsome species, like the preceding (*H. maculosa*), approaches *Oncideres* in many of its characters, especially the elongate eyes, subconvex form of body, and scarcely curved third antennal joint; but it lacks the massive head, cylindrical form of body, and short transverse thorax of *Oncideres*, and therefore must be classed with *Hesycha*.

Genus TRACHYSOMUS, Serville.

Serville, Ann. Soc. Ent. Fr. iv. (1835).

(Char. emend.) Buquet, Ann. Soc. Ent. Fr. 1852, p. 345.

This remarkable group is distinguished from the allied genera chiefly by the elytra being disfigured by tubercular excrescences, and by the antennæ being composed of short joints reaching only three-fourths the length of the body. The head is moderately narrow, the eyes oblong (not narrow and elongated as in *Oncideres*), the basal joint of the antennæ very abruptly clavate, the third joint very slightly curved, the thorax subcylindrical, and the claw-joint of the tarsi shorter than the remaining joints taken together. The species are found closely clinging to thin woody stems of plants, and strongly resemble portions of the stems distorted by glandular prominences or galls.

Trachysomus Santarensis, n. sp.

T. Trachysomo fragifero (Kirbii) valde similis, differt colore ochraceo-vel rufo-fulvo; thorace supra ochraceo; elytris juxta scutellum utrinque spinis quatuor acutis, fasciculis singulis pilorum subapicalibus nigris linea curvata nigra communi connexis. Long. $7\frac{1}{2}$ lin.

This is so closely similar in form of body and tubercular excrescences to the South-Brazilian *T. fragifer*, that it can scarcely be considered more than a local form of the same stock. It is a little broader and more robust, the thorax is less uneven on the disk, and is there of a bright yellowish-tawny colour. The two tubercles on each elytron, near the scutellum, are longer and more acute. The elytra are of a nearly uniform reddish or orange-brown hue; the subapical fascicle of hairs is a little further removed from the apex and margin of the elytra; it is connected with the corresponding fascicle posteriorly by a curved black line, and a large portion of the disk behind each basal excrescence is quite smooth.

Dry woods near Santarem.

Genus *ONCIDERES*, Serville.

Serville, Ann. Soc. Ent. Fr. (1835) iv.

The chief characters of this, the typical genus of the group, are furnished by the elongate-oblong or cylindrical form of body; the broad head and convex occiput, with consequent wide separation of the antennæ at their bases; the elongated eyes; the clavate shape of the basal antennal joint, and straight form of the third joint; the short transverse thorax; and, lastly, the great length of the claw-joint of the tarsi, which exceeds that of the three remaining joints taken together.

The species are all found on the branches of trees, which they amputate from the living tree by gnawing deeply into the bark and wood, making a ring-like incision, until the bough breaks off by its own weight. I have often seen boughs thus severed from green and living Cajú trees, and hence discovered that the best means of finding the insects was by examining the amputated portions lying on the ground in woods or the thinner parts of the forest. The object of the severance is apparently to create a supply of dead wood in which to deposit their eggs and rear the larvæ.

1. *Oncideres Callidryas*, n. sp.

O. minus convexus; thorace griseo-tomentoso; elytris basi minute granulatis, medio confertim punctatis, nigris, guttis numerosissimis carneo-griseis. Long. $10\frac{1}{2}$ lin. ♂ ♀.

Head much narrower than the middle part of the thorax, clothed with pinkish-tawny pile; forehead plane, punctured; antenniferous tubercles (♂) on each side armed with longish acute teeth directed forwards; eyes oblong. Antennæ about the same length as the body in the female, twice the length in the male, black. Thorax with transverse depressions, sides each armed with a strong conical tubercle, clothed with hoary-grey pile. Scutellum and basal margin of elytra hoary grey. Elytra less cylindrical and convex than in the more typical species; shoulders prominent and surmounted by a retrocurved tubercle, base and shoulders thickly and finely granulated, middle part simply but thickly punctured, punctures becoming finer posteriorly, and disappearing before the apex; colour black, sprinkled throughout with small grey or pinkish-grey spots, some very minute, others larger; near the middle of each side the spots are whiter, and tend to aggregation. Body beneath hoary white. Legs black, thinly clothed with grey pile.

Pará, banks of the Tapajos, and Ega; one pair taken *in copulâ* on a branch of a felled tree at Pará. The elytra are much more thickly spotted in the Ega examples than in those from Pará and the Lower Amazons.

2. *Oncideres Satyrus*, n. sp.

O. cylindricus, fulvo-brunneus; elytris guttis albis paucis sparsis, basi tuberculis nigris; antennis validis; thorace basi valde constricto. Long. 10-12 lin. ♂ ♀.

Head in the ♂ much narrower than the thorax, in the ♀ as wide as the widest part of the thorax, with broad plane front, colour tawny brown, a black stripe below each eye. Antennæ about the length of the body in the female, a little longer in the male, with the apical joint twice the length of the preceding; they are robust in both sexes, but the four basal joints are thicker in the ♂ than in the ♀; colour black. Thorax with transverse depressions; a conical tubercle on each side, and much constricted behind the tubercle; brownish tawny, with a fine, black, central, transverse line. Elytra cylindrical, brownish tawny, sprinkled with a small number of minute white spots; base and shoulders with a few polished rounded tubercles; rest of surface impunctate, smooth. Body beneath and legs thickly clothed with tawny pile; sides of breast chalky white.

Pará. Closely allied to *O. vomicosus*, Germar (Ins. Nov. 482), but differing greatly in the maculation of the elytra, the spots being small, few in number, and all distinct from each other.

3. *Oncideres fulvus*, n. sp.

O. oblongo-subcylindricus; thorace postice haud constricto, guttis nigris quinque discoidalibus in linea transversa dispositis, tuberculo parvo laterali; elytris modice elongatis, valde convexis, lævibus, guttis parvis albis sparsis, prope basin tuberculis utrinque circa duodecim nigris. Long. 11 lin. ♀.

Closely resembles *O. Satyrus*; but the body is proportionately shorter and broader in the female than in the corresponding sex of that species; the thorax is shorter, and shows no constriction near the base; the elytra are uniformly convex and impunctate, and there are very few tubercles near the base, only two conspicuous ones on each side of the scutellum, and a small number under each shoulder. The colour is entirely ochreous tawny, with the exception of five small spots placed in a transverse row across the thorax, the black elytral tubercles and a small number of widely separated, but tolerably uniformly distributed, white specks over the elytra. The antennæ are somewhat darker, and and there is a very distinct oblong chalky spot on each side of the breast.

Tapajos.

4. *Oncideres Diana*, Olivier.

Lamia Diana, Oliv. Ent. 67. p. 107. f. 168.

O. subcylindricus, griseus; elytris quarta parte basali dense ac mi-

nute tuberculata, parte apicali lineis tenuissimis furcatis nigris, medio guttis sparsis nigris; thorace linea transversa nigra: fœminæ capite lato fulvescente; maris capite angusto, fusco, inermi. Long. 8-11 lin. ♂ ♀.

This species is distinguished by the basal portion of the elytra being thickly covered with small glossy-black tubercles, of which one at the hinder part of the humeral prominence is much larger than the rest. The tuberculated area ceases abruptly behind, and the disk of the elytra has only a very few scattered and slightly elevated black specks, which towards the apex subside into simple spots, not raised at all from the smooth surface. The general colour is pale ashy grey (white beneath); the apical part of the elytra has a few fine black lines in the form of a double or treble fork joined at the base. The male differs greatly in width of head from the female, but the antennæ scarcely differ in proportionate length or stoutness; they are, however, more nearly approximated at their bases by one-half in the male than in the female, which gives to a male insect an appearance quite foreign to the genus. The male specimen before me has a finely reticulated black patch across each elytron at the tips of the forked lines, of which there is only a trace in one of the female examples.

Pará, and at Santarem on the Tapajos.

5. *Oncideres crassicornis*, n. sp.

O. subcylindricus, postice utroque sexu attenuatus, fulvo-brunneus; elytris basi tuberculis diversis sparsis instructis, postice punctis impressis rufescenti-brunneis in lineis furcatis ordinatis; maris antennis basi valde incrassatis, capite bicornuto. Long. 9-10 lin. ♂ ♀.

Head not much wider in the female than in the male, brownish tawny, with the usual black stripe below each eye; antenniferous tubercles in the male dentiform on each side. Antennæ dark brown, simple in the female, one-half longer than the body in the male, with the basal and third joints much thickened, especially the latter. Thorax impressed transversely, and furnished on each side with a tubercle; colour brownish tawny. Elytra narrowed to the tip in both sexes, tawny brown, inclining towards ashy near the middle; the basal part raised in the middle, and studded with a moderate number of scattered tubercles, differing greatly in size, and all glossy black; from the middle to the apex there is a number of shallow punctures covered each with a reddish-brown spot and arranged in forked lines. Body beneath and legs clothed with tawny-brown tomentum.

Ega, and banks of the Tapajos.

6. *Oncideres dignus*, n. sp.

O. cylindricus, fuscus; thorace tuberculis quinque in linea transversa ordinatis; elytris prope basin tuberculis magnis globosis utrinque sex nigris, postice guttis numerosis albis. Long. 10 lin. ♂.

Head (♂) moderately narrow; forehead very narrow, being encroached upon by the voluminous eyes, which are oblong and reach very nearly to the extremity of the muzzle; antenniferous tubercles unarmed; colour dark brown. Antennæ nearly twice the length of the body, black, basal joint gradually thickened from base to apex, rest of the antennæ tapering to the tip. Thorax longer and narrower than in the typical species of *Oncideres*; lateral tubercles small, obtuse, and black; in a line with them is a row of five similar glossy-black tubercles lying across the middle of the thorax; colour dark brown. Elytra cylindrical, clear dark brown, impunctate; middle of base with six very prominent glossy-black tubercles, arranged in two rows; besides these, there are ten or twelve smaller tubercles on each side, three of which are on the shoulder: the rest of the elytra smooth, and ornamented with a number of small clear white spots, distributed regularly and widely apart over the surface. Body beneath and legs dark brown.

This handsome species was very rare, at Ega, Upper Amazons.

7. *Oncideres pulchellus*, n. sp.

O. minor, cylindricus, griseo-brunneus; elytris cinereo maculatis, dimidio basali tuberculis rotundatis, dimidio apicali maculis impressis, nigro-nitidis. Long. 6½ lin. ♀.

Head and thorax of same breadth; head ashy brown, with a streak down each side of the front tawny; buccal organs and circuit of the mouth red. Antennæ a little longer than the body, dark brown. Thorax ashy brown, with three shining-black tubercles in a triangle on the disk, and two smaller ones on each side, the outermost of which is in the position of the ordinary lateral tubercle. Elytra cylindrical, obtuse behind, ashy brown, varied with a small number of equal-sized and equidistant pale ashy spots, and with a number of scattered shining round spots, those over the basal half covering large rounded tubercles of small elevation, and those towards the apex shallow impressions; the tubercles are not crowded near the base or shoulders, but are widely dispersed. Body beneath and legs light brown; sides of breast with an ashy patch.

Ega; rare.

8. *Oncideres Cephalotes*, n. sp.

O. magnus, robustus, convexus, postice attenuatus, cinereo-brunneus; elytris prope basin dense, pone basin sparsim tuberculatis, tuber-

culis ovatis, obliquis et postice elevatis; thoracis tuberculis lateralibus elongatis, fronte magna, latissima, nuda, punctulata. Long. 15 lin., lat. capitis $4\frac{1}{2}$ lin. ♀.

Head brown; front naked, coriaceous, punctured, black; eyes moderate, reaching little more than halfway down the forehead; vertex very convex. Antennæ rather shorter than the body (♀), tapering to the apex, basal joint curved; colour brown. Thorax twice as broad as long, a little narrowed behind the lateral tubercles, which are long and spiniform; surface dull ashy brown, with a central transverse black line. Elytra massive, narrowed to the apex, convex, especially in the middle of the basal part on each side; shoulders prominent and oblique, with a conspicuous tubercle at their hinder angles; colour ashy brown, paler near the middle, and covered with small, oblong, raised, scale-like tubercles, which are very crowded and strongly elevated at their posterior ends near the base, much scattered and very slightly elevated near the middle, and arranged in rows, simply as spots, near the apex. Body beneath ashy white; legs ashy brown.

Eggs*.

Genus EUDESMUS, Serville.

Serville, Ann. Soc. Ent. Fr. iv. (1835) p. 82.

This well-marked genus resembles *Oncideres* in its cylindrical form of body. Its distinguishing character is derived from the bulbous ovate shape of the third antennal joint in the male.

* The following new species have lately been received from entomological travellers in South America:—

Oncideres limpidus. Cylindricus, fusco-nitidus; elytris fulvo-ochraceo irroratis. Caput (♂) modice angustatum, fronte punctata, ochracea, vitta infraoculari nigra; tuberculis antenniferis intus prominulis, acutis. Antennæ corpore longiores, nigrae nitidae; articulo basali distincte clavato, articulis tertio et quarto infra dense ciliatis. Thorax postice angustatus, tuberculis lateralibus modice productis, nigris; supra ochraceo-brunneus, linea nigra transversa, ante medium fascia rufo-fulva. Elytra cylindrica, fusco-nitida maculis numerosissimis discretis tomentosus ochraceo-fulvis; juxta basin tuberculis globosis paucis; deinde leviter granulata, humeris confertim tuberculatis. Corpus subtus fulvo-tomentosum. Pedes nigricantes, femoribus fulvo tomentosus. Long. 10 lin. ♂. Hab. in Bahia Brasilæ, a Dom. Reed lecto.

Oncideres Bouchardii. Cylindricus, cano-griseus; elytris nigro punctatis et maculis majoribus rotundatis fulvis sparsis. Caput latum, griseum, maris paulo angustius, tuberculis antenniferis intus vix prominulis. Antennæ griseæ; articulo basali gradatim incrassato, nigro, maris valde rugoso. Thorax griseus, linea transversa nigra. Elytra convexa, vage punctata, cano-grisea, maculis rotundatis carneo-fulvis conspersa, punctis nigris; prope basin tuberculis numerosis globosis. Corpus subtus pedesque cano tomentosa. Long. 10–11 lin. ♂ ♀. Hab. in Sta. Martha Novæ Granatæ, a Dom. Bouchard copiose missus.

The females of some of the species resemble *Oncideres* very closely; and almost the only feature by which their generic position may be recognized is the peculiar dark patch, streaked with paler colours, which exists on the apical part of the elytra of all the species. The head is broad, very little broader in the females than in the males; but the forehead is not so plane or so much elongated as in *Oncideres*. The basal joint of the antennæ forms a smooth ovate club; the thorax is relatively a little longer than in *Oncideres*; the elytra are free from ridges and tubercles, and are obtusely rounded at the apex; the claw-joint of the tarsi is moderately elongated, and is about equal in length to the remaining three.

1. *Eudesmus rubefactus*, n. sp.

E. cylindricus, convexus, rufescens; thorace nigro-lineato; elytris dimidio basali grisescente, apice utrinque macula magna ovata saturiore strigis nigris et griseis ornata. Long. $7\frac{1}{2}$ –9 lin. ♂ ♀.

Head reddish tawny, vertex streaked with black; front plane, coarsely punctured, dingy grey; eyes oblong, one-half the length of the front; antenniferous tubercles in the male acute on their inner sides. Antennæ about the length of the body, reddish tawny; apices of joints, from the fourth, blackish. Thorax cylindrical, of same width as the head, very uneven, especially on the sides, where the inequalities rise to broad, obtuse tubercles; colour pinkish red, centre with two black lines continuous with those on the vertex, sides each with two or three much-broken and oblique lines. Scutellum and basal margin of elytra reddish, spotted with black. Elytra cylindrical, convex, abruptly declivous near the apex; surface uneven, with faintly raised lines, thickly punctured, especially towards the base, basal half occupied by a large, triangular, common, dingy-grey patch; on this follows a belt of pale greyish red, which broadens greatly on the lateral margins; the apical portion of each elytron is occupied by a dark, neatly limited, oval patch, streaked longitudinally with black, tawny red, and grey. Body beneath and legs reddish brown; breast ashy in the middle.

Eggs, clinging to dead boughs of trees; rare.

2. *Eudesmus caudalis*, n. sp.

E. cylindricus, depressiusculus, cinereo-brunneus; thorace postice fusco notato; elytris dimidio basali griseo-fusco, apice utrinque macula magna ovata nigricante fulvo strigata, medio cinereo fasciata. Long. $5\frac{1}{2}$ –6 lin. ♂ ♀.

Very closely allied to *E. rubefactus*, and scarcely differing in the disposition of the colours and markings of the elytra. The latter, however, are much more depressed; and the insect is of a

dull ashy-brown hue, and much narrower and smaller. The forehead is uneven, punctured, and of a dull slaty hue; the third antennal joint in the male is much less swollen than in *E. rubefactus*, and therefore more elongate, and fusiform rather than ovate in shape. The thorax is uneven and obtusely tuberculated on the sides, but is destitute of longitudinal lines, except two very short ones near the base. The elytra are of the same grey leaden hue over their basal halves, and have a pale belt beyond the middle; but the latter does not expand on the margin. The dark apical streaked spot has an ashy transverse streak across the middle.

Also found at Ega.

3. *Eudesmus posticalis*, Guérin.

Eudesmus posticalis, Guérin-Méneville, Icon. Règne Animal, p. 248.

E. cylindricus, subdepressus, brunneus; thorace dorso valde inæquali immaculato, tuberculis lateralibus parvis; elytris medio fascia obliqua grisea, deinde brunneis griseo et griseo-brunneo strigatis, ante apicem signatura nigra griseo marginata; antennis brunneis, articulis (duobus basalibus exceptis) basi testaceis; maris articulo tertio valde inflato, ovato. Long. $6\frac{1}{2}$ lin. ♂.

“D’un gris-brunâtre couvert d’un duvet très-court et très-fin d’une couleur cendrée, surtout en dessous, sur les côtés du corselet et au milieu des élytres, où ce cendré blanchâtre forme une bande crochue en arrière, terminée en pointe près de la suture et précédant une tache arrondie d’un brun plus foncé, en arrière de laquelle on voit une petite tache allongée blanche et deux ou trois petites lignes noirâtres. Antennes d’un gris brun, avec la base du troisième article et des suivants d’un jaune roussâtre pâle, une petite pointe avancée à la saillie du front sur laquelle s’insèrent les antennes. Pattes courtes et fortes, d’un gris brun dessus, cendrées en dessous. Long. 14, lat. 5 mill.—Brésil intérieur.” (Guérin-Méneville, *l. c.*)

My example was found at Ega.

4. *Eudesmus sexvittatus*, n. sp.

E. elongatus, depressus, fulvo-brunneus; thorace supra vittis sex nigris; elytris ultra medium dilatatis, plaga laterali infra humeros, linea basali strigisque ante apicem fuscis, vitta curvata laterali cinerea; fronte abbreviata, oculis magnis subconvexis. Long. $6\frac{1}{2}$ lin. ♀.

Head slightly convex on the forehead, with short muzzle; eyes very large, broad, and somewhat convex, reaching very nearly to the edge of the epistome; vertex bright tawny, and marked with a semicircular figure of a blackish-brown hue. Antennæ rather longer than the body (♀) and stout, ochreous

brown, base of joints (from the fourth) pallid. Thorax convex, but depressed near the hind margin; lateral tubercle small, conical; colour above bright tawny, with six blackish-brown vittæ; sides ashy, with a broader and paler dusky stripe. Scutellum pale tawny ochreous. Elytra dilated a little behind the middle, depressed, and thickly punctured (except towards the apex), rusty tawny, with a few short ashy streaks and a number of dark-brown strigæ a little behind the middle, the innermost of which runs near the suture to the apex: the basal half of the suture is broadly margined with dusky, and there is a short blackish stripe on each side near the scutellum, and a broad patch of similar hue beneath each shoulder, on the upper edge of which is an ashy streak, which continues in a curved line to the lateral margin, and then to the apex. Body beneath ashy; sides of breast and abdomen dark brown. Legs reddish; femora and tibiæ each with a blackish ring round the middle.

I met with the female only of this remarkable species, which differs so much from the other *Eudesmi* in the shortness of the muzzle. If the male, when discovered, should be found not to possess the swollen third antennal joint, the species will have to be removed from this genus. It was found at Ega.

[To be continued.]

XXIII.—*A Description of some Fossil Corals from the South Australian Tertiaries.* By P. MARTIN DUNCAN, M.B. Lond., Sec. Geol. Soc.

[Plate VIII.]

THE corals about to be described were derived from the same Tertiary beds which yielded the species noticed in the 'Annals' for Sept. 1864*. A new genus is represented by three well-marked species; the well-known genus *Sphenotrochus*† has two species in the collection; and the genus *Antillia*‡, which attains so great a development in the Nivaje shale of San Domingo, is represented by a very interesting new species.

List of Species.

1. *Sphenotrochus australis*, Woods & Duncan, sp. nov.
2. — *emarciatus*, sp. nov.

* The Rev. J. Woods, who collected those formerly described, classes the various beds of Muddy Creek, Geelong, and the Murray beds as the "Hamilton" Tertiaries. I have to thank him for the specimens now determined and for others which require some further study before their publication.

† Edwards and Haime, *Hist. Nat. des Coralliaires*, vol. ii. p. 65.

‡ P. Martin Duncan, *Quart. Journ. Geol. Soc.* Feb. 1864, p. 28.